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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,725	10/03/2003	Robert C. Lam	01170/00078	6124

43215 7590 02/08/2005

BORGWARNER INC.  
PATENT DEPARTMENT  
3800 AUTOMATION AVE  
AUBURN HILLS, MI 48326-1782

EXAMINER

SPERTY, ARDEN B

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/678,725

Applicant(s)

LAM, ROBERT C.

Examiner

Arden B. Sperty

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Application filed 10/03/03.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09/28/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**NON-FINAL OFFICE ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding claim 1, the phrase "suitable" renders the claims indefinite because it is unclear what renders a resin suitable for impregnating the fibrous base.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,130,176 to Lam.

The reference teaches a friction material comprising a fibrous base material having a total fiber content as claimed (col. 8, line 58- col. 9, line 1), wherein the fibrous base material is impregnated with a resin (col. 4, lines 31-41).

The fibrous base material has an average void volume of at least about 50% (col. 7, lines 48-50) and an average pore diameter of about 2.0 to 15 microns (col. 7, lines 44-46).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,130,176 to Lam as applied to claim 1 above in view of either Derwent Pub-no. RD 406020 or US 6,013,696 to Hill et al.

While the Lam reference teaches the structure of claim 1, as stated above, the reference is silent with respect to whether the fibrous base material is woven or non-woven. Although the reference is silent, both woven and non-woven friction materials are standard in the art. Therefore, it is presumed that the detail was omitted with the understanding that it would be implicit to one of ordinary skill in the art that both woven and non-woven materials are included. Both the Derwent reference (Abstract) and the Hill reference (col. 1, lines 21-24; col. 3-4, lines 65-9) teach non-woven friction materials of similar composition and use. Forming the friction material of the Lam reference as a non-woven would have been obvious to one ordinary skill in the art because doing so is conventional.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,130,176 to Lam as applied to claim 1 above in view of either US 4,997,067 to Watts or US 5,495,922 to Booher.

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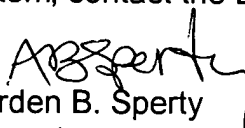
While the Lam reference teaches the structure of claim 1, as stated above, the reference is silent with respect to whether the fibrous base material is woven or non-woven. Although the reference is silent, both woven and non-woven friction materials are standard in the art. Therefore, it is presumed that the detail was omitted with the understanding that it would be implicit to one of ordinary skill in the art that both woven and non-woven materials are included. Both the Watts reference (col. 1, lines 9-12; col. 2, lines 21-24, 43-55) and the Booher reference (col. 3, lines 12-22; col. 4, lines 22-25) teach woven friction materials of similar composition and use. Forming the friction material of the Lam reference as a woven material would have been obvious to one ordinary skill in the art because doing so is conventional.

### **Conclusion**

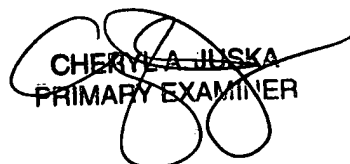
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Arden B. Sperty  
Examiner  
Art Unit 1771

February 3, 2005

  
CHERYL A. HUSKA  
PRIMARY EXAMINER